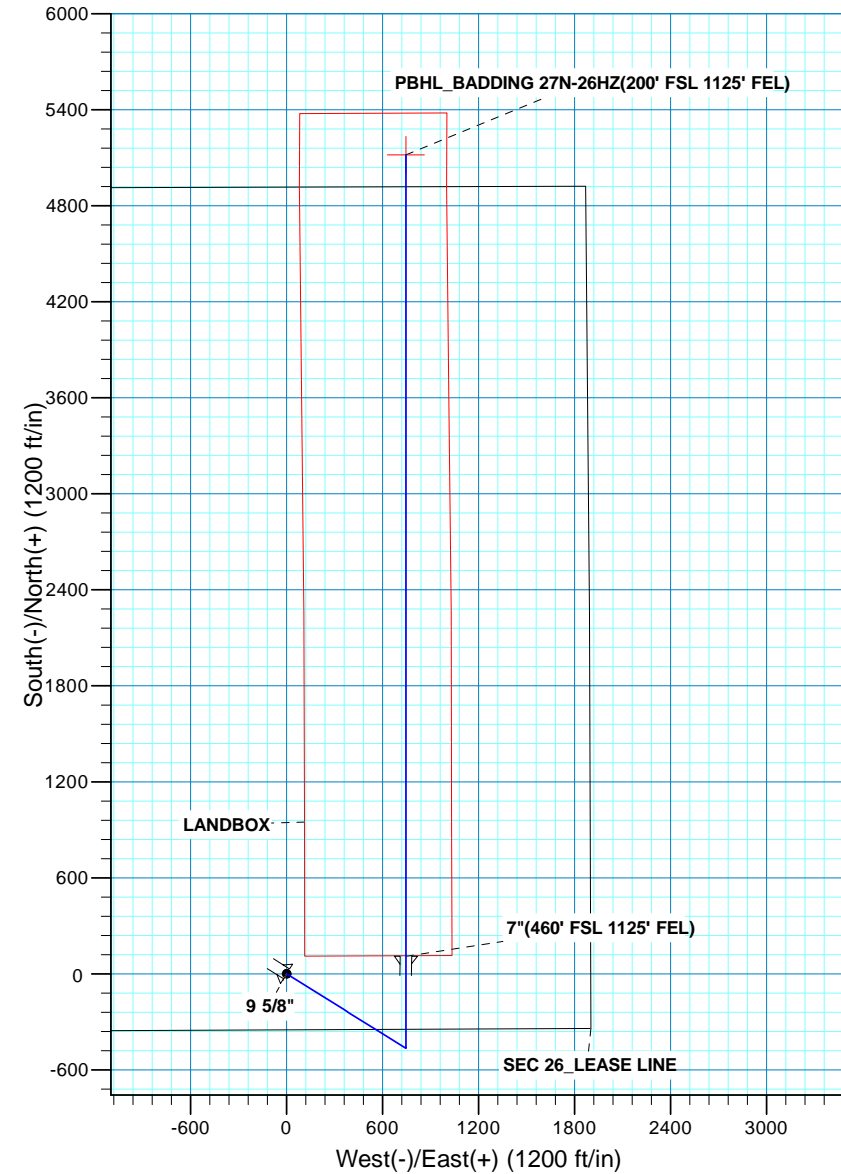
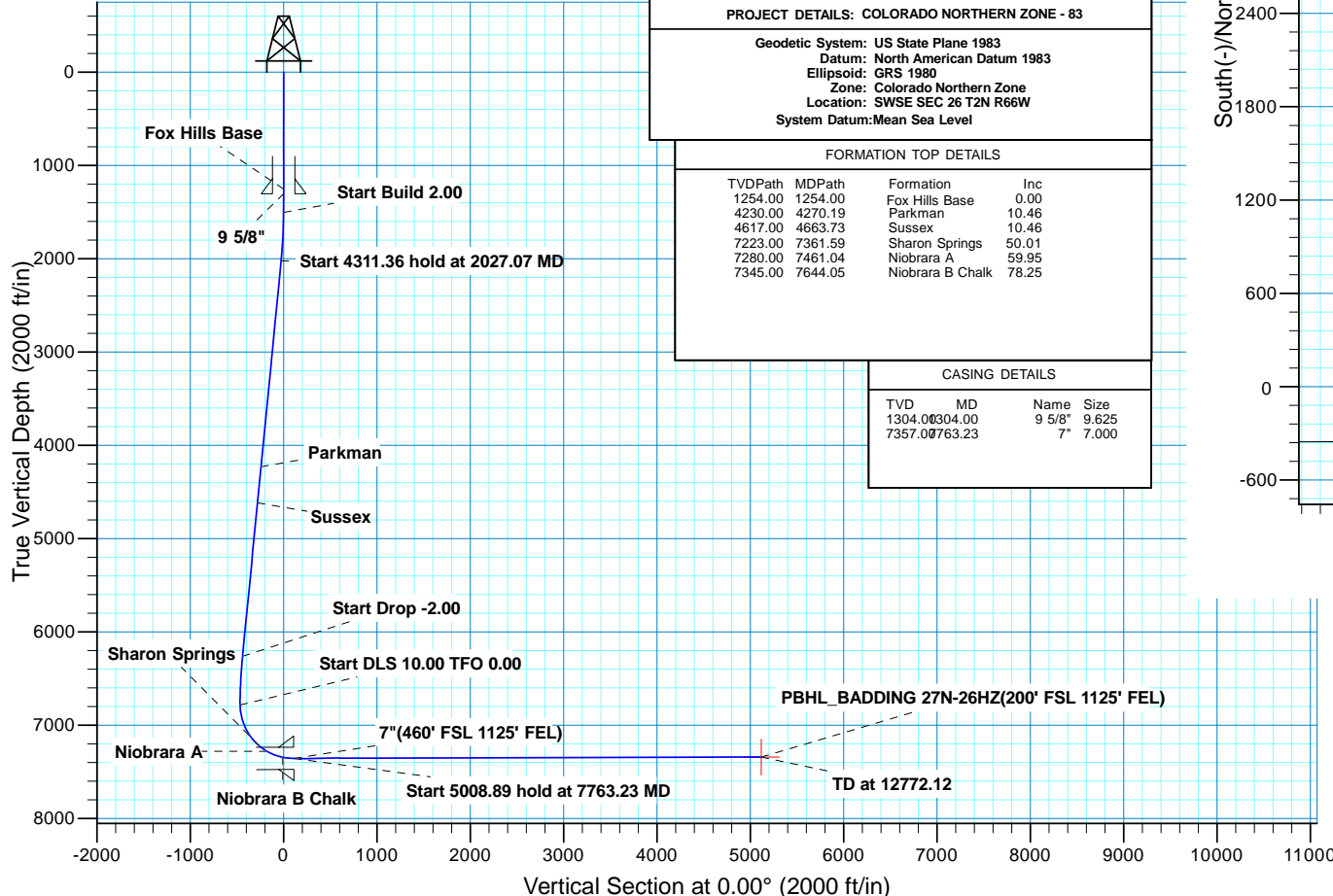


WELL DETAILS: BADDING 27N-26HZ										
GL 5115' & KB 17" @ 5132.00ft (ASSUMED)										
		+N/-S 0.00	+E/-W 0.00	Northing 1281269.91	Easting 3212127.14	Latitude 40.1029880	Longitude -104.7416640			
SECTION DETAILS										
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1504.00	0.00	0.00	1504.00	0.00	0.00	0.00	0.00	0.00		Start Build 2.00
2027.07	10.46	121.95	2024.17	-25.20	40.41	2.00	121.95	-25.20		Start 4311.36 hold at 2027.07 MD
6338.44	10.46	121.95	6263.87	-439.47	704.64	0.00	0.00	-439.47		Start Drop -2.00
6861.51	0.00	0.00	6784.04	-464.67	745.05	2.00	180.00	-464.67		Start DLS 10.00 TFO 0.00
7763.23	90.17	0.00	7357.00	110.00	745.05	10.00	0.00	110.00		Start 5008.89 hold at 7763.23 MD
12772.12	90.17	0.00	7342.00	5118.87	745.05	0.00	0.00	5118.87	PBHL_BADDING 27N-26HZ	TD at 12772.12
DESIGN TARGET DETAILS										
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape		
PBHL	7342.00	5118.87	745.05	1286394.96	3212828.38	40.1170400	-104.7390000	Point		

PROJECT DETAILS: COLORADO NORTHERN ZONE - 83										
Geodetic System: US State Plane 1983										
Datum: North American Datum 1983										
Ellipsoid: GRS 1980										
Zone: Colorado Northern Zone										
Location: SWSE SEC 26 T2N R66W										
System Datum: Mean Sea Level										

FORMATION TOP DETAILS				
TVDPATH	MDPATH	Formation	Inc	
1254.00	1254.00	Fox Hills Base	0.00	
4230.00	4270.19	Parkman	10.46	
4617.00	4663.73	Sussex	10.46	
7223.00	7361.59	Sharon Springs	50.01	
7280.00	7461.04	Niobrara A	59.95	
7345.00	7644.05	Niobrara B Chalk	78.25	

CASING DETAILS				
TVDPATH	MD	Name	Size	
1304.00	1304.00	9 5/8"	9.625	
7357.00	7763.23	7"	7.000	





Scientific Drilling

US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

BADDING 15-26HZ

BADDING 27N-26HZ

OH

Plan: PLAN #1 PRELIMINARY

Standard Planning Report

24 September, 2013

Database:	Denver Sales Office	Local Co-ordinate Reference:	Well BADDING 27N-26HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5115' & KB 17' @ 5132.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 5115' & KB 17' @ 5132.00ft (ASSUMED)
Site:	BADDING 15-26HZ	North Reference:	True
Well:	BADDING 27N-26HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Project	COLORADO NORTHERN ZONE - 83, KERR MCGEE OIL & GAS ONSHORE LP		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site	BADDING 15-26HZ, SWSE SEC 26 T2N R66W			
Site Position:		Northing:	1,281,268.67 usft	Latitude: 40.1029870
From:	Lat/Long	Easting:	3,212,023.08 usft	Longitude: -104.7420360
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence: 0.49 °

Well	BADDING 27N-26HZ, 350 FSL 1901 FEL			
Well Position	+N/-S	0.35 ft	Northing:	1,281,269.91 usft
	+E/-W	104.06 ft	Easting:	3,212,127.14 usft
Position Uncertainty		0.00 ft	Wellhead Elevation:	
			Ground Level:	5,115.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2013	7/29/2013	8.57	66.73	52,682

Design	PLAN #1 PRELIMINARY			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	0.00

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,504.00	0.00	0.00	1,504.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,027.07	10.46	121.95	2,024.17	-25.20	40.41	2.00	2.00	0.00	121.95	
6,338.44	10.46	121.95	6,263.87	-439.47	704.64	0.00	0.00	0.00	0.00	
6,861.51	0.00	0.00	6,784.04	-464.67	745.05	2.00	-2.00	0.00	180.00	
7,763.23	90.17	0.00	7,357.00	110.00	745.05	10.00	10.00	0.00	0.00	
12,772.12	90.17	0.00	7,342.00	5,118.87	745.05	0.00	0.00	0.00	0.00	PBHL_BADDING 27N

Database:	Denver Sales Office	Local Co-ordinate Reference:	Well BADDING 27N-26HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5115' & KB 17' @ 5132.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 5115' & KB 17' @ 5132.00ft (ASSUMED)
Site:	BADDING 15-26HZ	North Reference:	True
Well:	BADDING 27N-26HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,254.00	0.00	0.00	1,254.00	0.00	0.00	0.00	0.00	0.00	0.00
Fox Hills Base									
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,304.00	0.00	0.00	1,304.00	0.00	0.00	0.00	0.00	0.00	0.00
9 5/8"									
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,504.00	0.00	0.00	1,504.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
1,600.00	1.92	121.95	1,599.98	-0.85	1.36	-0.85	2.00	2.00	0.00
1,700.00	3.92	121.95	1,699.85	-3.55	5.69	-3.55	2.00	2.00	0.00
1,800.00	5.92	121.95	1,799.47	-8.09	12.96	-8.09	2.00	2.00	0.00
1,900.00	7.92	121.95	1,898.74	-14.46	23.19	-14.46	2.00	2.00	0.00
2,000.00	9.92	121.95	1,997.53	-22.67	36.34	-22.67	2.00	2.00	0.00
2,027.07	10.46	121.95	2,024.17	-25.20	40.41	-25.20	2.00	2.00	0.00
Start 4311.36 hold at 2027.07 MD									
2,100.00	10.46	121.95	2,095.89	-32.21	51.64	-32.21	0.00	0.00	0.00
2,200.00	10.46	121.95	2,194.22	-41.82	67.05	-41.82	0.00	0.00	0.00
2,300.00	10.46	121.95	2,292.56	-51.43	82.46	-51.43	0.00	0.00	0.00
2,400.00	10.46	121.95	2,390.90	-61.03	97.86	-61.03	0.00	0.00	0.00
2,500.00	10.46	121.95	2,489.24	-70.64	113.27	-70.64	0.00	0.00	0.00
2,600.00	10.46	121.95	2,587.57	-80.25	128.68	-80.25	0.00	0.00	0.00
2,700.00	10.46	121.95	2,685.91	-89.86	144.08	-89.86	0.00	0.00	0.00
2,800.00	10.46	121.95	2,784.25	-99.47	159.49	-99.47	0.00	0.00	0.00
2,900.00	10.46	121.95	2,882.59	-109.08	174.90	-109.08	0.00	0.00	0.00
3,000.00	10.46	121.95	2,980.93	-118.69	190.30	-118.69	0.00	0.00	0.00
3,100.00	10.46	121.95	3,079.26	-128.30	205.71	-128.30	0.00	0.00	0.00
3,200.00	10.46	121.95	3,177.60	-137.90	221.12	-137.90	0.00	0.00	0.00
3,300.00	10.46	121.95	3,275.94	-147.51	236.52	-147.51	0.00	0.00	0.00
3,400.00	10.46	121.95	3,374.28	-157.12	251.93	-157.12	0.00	0.00	0.00
3,500.00	10.46	121.95	3,472.61	-166.73	267.34	-166.73	0.00	0.00	0.00
3,600.00	10.46	121.95	3,570.95	-176.34	282.74	-176.34	0.00	0.00	0.00
3,700.00	10.46	121.95	3,669.29	-185.95	298.15	-185.95	0.00	0.00	0.00
3,800.00	10.46	121.95	3,767.63	-195.56	313.56	-195.56	0.00	0.00	0.00
3,900.00	10.46	121.95	3,865.97	-205.17	328.96	-205.17	0.00	0.00	0.00
4,000.00	10.46	121.95	3,964.30	-214.77	344.37	-214.77	0.00	0.00	0.00
4,100.00	10.46	121.95	4,062.64	-224.38	359.78	-224.38	0.00	0.00	0.00
4,200.00	10.46	121.95	4,160.98	-233.99	375.18	-233.99	0.00	0.00	0.00
4,270.19	10.46	121.95	4,230.00	-240.74	386.00	-240.74	0.00	0.00	0.00
Parkman									
4,300.00	10.46	121.95	4,259.32	-243.60	390.59	-243.60	0.00	0.00	0.00

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Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 5115' & KB 17' @ 5132.00ft (ASSUMED)
Site:	BADDING 15-26HZ	North Reference:	True
Well:	BADDING 27N-26HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,400.00	10.46	121.95	4,357.65	-253.21	406.00	-253.21	0.00	0.00	0.00
4,500.00	10.46	121.95	4,455.99	-262.82	421.40	-262.82	0.00	0.00	0.00
4,600.00	10.46	121.95	4,554.33	-272.43	436.81	-272.43	0.00	0.00	0.00
4,663.73	10.46	121.95	4,617.00	-278.55	446.63	-278.55	0.00	0.00	0.00
Sussex									
4,700.00	10.46	121.95	4,652.67	-282.04	452.22	-282.04	0.00	0.00	0.00
4,800.00	10.46	121.95	4,751.00	-291.64	467.62	-291.64	0.00	0.00	0.00
4,900.00	10.46	121.95	4,849.34	-301.25	483.03	-301.25	0.00	0.00	0.00
5,000.00	10.46	121.95	4,947.68	-310.86	498.44	-310.86	0.00	0.00	0.00
5,100.00	10.46	121.95	5,046.02	-320.47	513.84	-320.47	0.00	0.00	0.00
5,200.00	10.46	121.95	5,144.36	-330.08	529.25	-330.08	0.00	0.00	0.00
5,300.00	10.46	121.95	5,242.69	-339.69	544.66	-339.69	0.00	0.00	0.00
5,400.00	10.46	121.95	5,341.03	-349.30	560.06	-349.30	0.00	0.00	0.00
5,500.00	10.46	121.95	5,439.37	-358.91	575.47	-358.91	0.00	0.00	0.00
5,600.00	10.46	121.95	5,537.71	-368.51	590.88	-368.51	0.00	0.00	0.00
5,700.00	10.46	121.95	5,636.04	-378.12	606.28	-378.12	0.00	0.00	0.00
5,800.00	10.46	121.95	5,734.38	-387.73	621.69	-387.73	0.00	0.00	0.00
5,900.00	10.46	121.95	5,832.72	-397.34	637.10	-397.34	0.00	0.00	0.00
6,000.00	10.46	121.95	5,931.06	-406.95	652.50	-406.95	0.00	0.00	0.00
6,100.00	10.46	121.95	6,029.39	-416.56	667.91	-416.56	0.00	0.00	0.00
6,200.00	10.46	121.95	6,127.73	-426.17	683.32	-426.17	0.00	0.00	0.00
6,300.00	10.46	121.95	6,226.07	-435.78	698.72	-435.78	0.00	0.00	0.00
6,338.44	10.46	121.95	6,263.87	-439.47	704.64	-439.47	0.00	0.00	0.00
Start Drop -2.00									
6,400.00	9.23	121.95	6,324.52	-445.04	713.58	-445.04	2.00	-2.00	0.00
6,500.00	7.23	121.95	6,423.49	-452.62	725.72	-452.62	2.00	-2.00	0.00
6,600.00	5.23	121.95	6,522.89	-458.36	734.93	-458.36	2.00	-2.00	0.00
6,700.00	3.23	121.95	6,622.62	-462.26	741.19	-462.26	2.00	-2.00	0.00
6,800.00	1.23	121.95	6,722.53	-464.32	744.49	-464.32	2.00	-2.00	0.00
6,861.51	0.00	0.00	6,784.04	-464.67	745.05	-464.67	2.00	-2.00	0.00
Start DLS 10.00 TFO 0.00									
6,900.00	3.85	0.00	6,822.50	-463.38	745.05	-463.38	10.00	10.00	0.00
7,000.00	13.85	0.00	6,921.19	-448.01	745.05	-448.01	10.00	10.00	0.00
7,100.00	23.85	0.00	7,015.70	-415.75	745.05	-415.75	10.00	10.00	0.00
7,200.00	33.85	0.00	7,103.18	-367.56	745.05	-367.56	10.00	10.00	0.00
7,300.00	43.85	0.00	7,180.96	-304.91	745.05	-304.91	10.00	10.00	0.00
7,361.59	50.01	0.00	7,223.00	-259.94	745.05	-259.94	10.00	10.00	0.00
Sharon Springs									
7,400.00	53.85	0.00	7,246.68	-229.71	745.05	-229.71	10.00	10.00	0.00
7,461.04	59.95	0.00	7,280.00	-178.60	745.05	-178.60	10.00	10.00	0.00
Niobrara A									
7,500.00	63.85	0.00	7,298.35	-144.24	745.05	-144.24	10.00	10.00	0.00
7,600.00	73.85	0.00	7,334.39	-51.09	745.05	-51.09	10.00	10.00	0.00
7,644.05	78.25	0.00	7,345.00	-8.36	745.05	-8.36	10.00	10.00	0.00
Niobrara B Chalk									
7,700.00	83.85	0.00	7,353.70	46.89	745.05	46.89	10.00	10.00	0.00
7,763.23	90.17	0.00	7,357.00	110.01	745.05	110.01	10.00	10.00	0.00
Start 5008.89 hold at 7763.23 MD - 7"(460' FSL 1125' FEL)									
7,800.00	90.17	0.00	7,356.89	146.78	745.05	146.78	0.00	0.00	0.00
7,900.00	90.17	0.00	7,356.59	246.78	745.05	246.78	0.00	0.00	0.00
8,000.00	90.17	0.00	7,356.29	346.78	745.05	346.78	0.00	0.00	0.00
8,100.00	90.17	0.00	7,355.99	446.78	745.05	446.78	0.00	0.00	0.00
8,200.00	90.17	0.00	7,355.69	546.77	745.05	546.77	0.00	0.00	0.00

Database:	Denver Sales Office	Local Co-ordinate Reference:	Well BADDING 27N-26HZ
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Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 5115' & KB 17' @ 5132.00ft (ASSUMED)
Site:	BADDING 15-26HZ	North Reference:	True
Well:	BADDING 27N-26HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,300.00	90.17	0.00	7,355.39	646.77	745.05	646.77	0.00	0.00	0.00
8,400.00	90.17	0.00	7,355.09	746.77	745.05	746.77	0.00	0.00	0.00
8,500.00	90.17	0.00	7,354.79	846.77	745.05	846.77	0.00	0.00	0.00
8,600.00	90.17	0.00	7,354.49	946.77	745.05	946.77	0.00	0.00	0.00
8,700.00	90.17	0.00	7,354.19	1,046.77	745.05	1,046.77	0.00	0.00	0.00
8,800.00	90.17	0.00	7,353.89	1,146.77	745.05	1,146.77	0.00	0.00	0.00
8,900.00	90.17	0.00	7,353.59	1,246.77	745.05	1,246.77	0.00	0.00	0.00
9,000.00	90.17	0.00	7,353.29	1,346.77	745.05	1,346.77	0.00	0.00	0.00
9,100.00	90.17	0.00	7,352.99	1,446.77	745.05	1,446.77	0.00	0.00	0.00
9,200.00	90.17	0.00	7,352.69	1,546.77	745.05	1,546.77	0.00	0.00	0.00
9,300.00	90.17	0.00	7,352.40	1,646.77	745.05	1,646.77	0.00	0.00	0.00
9,400.00	90.17	0.00	7,352.10	1,746.77	745.05	1,746.77	0.00	0.00	0.00
9,500.00	90.17	0.00	7,351.80	1,846.77	745.05	1,846.77	0.00	0.00	0.00
9,600.00	90.17	0.00	7,351.50	1,946.77	745.05	1,946.77	0.00	0.00	0.00
9,700.00	90.17	0.00	7,351.20	2,046.77	745.05	2,046.77	0.00	0.00	0.00
9,800.00	90.17	0.00	7,350.90	2,146.77	745.05	2,146.77	0.00	0.00	0.00
9,900.00	90.17	0.00	7,350.60	2,246.77	745.05	2,246.77	0.00	0.00	0.00
10,000.00	90.17	0.00	7,350.30	2,346.77	745.05	2,346.77	0.00	0.00	0.00
10,100.00	90.17	0.00	7,350.00	2,446.77	745.05	2,446.77	0.00	0.00	0.00
10,200.00	90.17	0.00	7,349.70	2,546.77	745.05	2,546.77	0.00	0.00	0.00
10,300.00	90.17	0.00	7,349.40	2,646.77	745.05	2,646.77	0.00	0.00	0.00
10,400.00	90.17	0.00	7,349.10	2,746.77	745.05	2,746.77	0.00	0.00	0.00
10,500.00	90.17	0.00	7,348.80	2,846.76	745.05	2,846.76	0.00	0.00	0.00
10,600.00	90.17	0.00	7,348.50	2,946.76	745.05	2,946.76	0.00	0.00	0.00
10,700.00	90.17	0.00	7,348.20	3,046.76	745.05	3,046.76	0.00	0.00	0.00
10,800.00	90.17	0.00	7,347.90	3,146.76	745.05	3,146.76	0.00	0.00	0.00
10,900.00	90.17	0.00	7,347.61	3,246.76	745.05	3,246.76	0.00	0.00	0.00
11,000.00	90.17	0.00	7,347.31	3,346.76	745.05	3,346.76	0.00	0.00	0.00
11,100.00	90.17	0.00	7,347.01	3,446.76	745.05	3,446.76	0.00	0.00	0.00
11,200.00	90.17	0.00	7,346.71	3,546.76	745.05	3,546.76	0.00	0.00	0.00
11,300.00	90.17	0.00	7,346.41	3,646.76	745.05	3,646.76	0.00	0.00	0.00
11,400.00	90.17	0.00	7,346.11	3,746.76	745.05	3,746.76	0.00	0.00	0.00
11,500.00	90.17	0.00	7,345.81	3,846.76	745.05	3,846.76	0.00	0.00	0.00
11,600.00	90.17	0.00	7,345.51	3,946.76	745.05	3,946.76	0.00	0.00	0.00
11,700.00	90.17	0.00	7,345.21	4,046.76	745.05	4,046.76	0.00	0.00	0.00
11,800.00	90.17	0.00	7,344.91	4,146.76	745.05	4,146.76	0.00	0.00	0.00
11,900.00	90.17	0.00	7,344.61	4,246.76	745.05	4,246.76	0.00	0.00	0.00
12,000.00	90.17	0.00	7,344.31	4,346.76	745.05	4,346.76	0.00	0.00	0.00
12,100.00	90.17	0.00	7,344.01	4,446.76	745.05	4,446.76	0.00	0.00	0.00
12,200.00	90.17	0.00	7,343.71	4,546.76	745.05	4,546.76	0.00	0.00	0.00
12,300.00	90.17	0.00	7,343.41	4,646.76	745.05	4,646.76	0.00	0.00	0.00
12,400.00	90.17	0.00	7,343.11	4,746.76	745.05	4,746.76	0.00	0.00	0.00
12,500.00	90.17	0.00	7,342.81	4,846.76	745.05	4,846.76	0.00	0.00	0.00
12,600.00	90.17	0.00	7,342.52	4,946.76	745.05	4,946.76	0.00	0.00	0.00
12,700.00	90.17	0.00	7,342.22	5,046.75	745.05	5,046.75	0.00	0.00	0.00
12,772.12	90.17	0.00	7,342.00	5,118.87	745.05	5,118.87	0.00	0.00	0.00
TD at 12772.12 - PBHL_BADDING 27N-26HZ(200' FSL 1125' FEL)									

Database:	Denver Sales Office	Local Co-ordinate Reference:	Well BADDING 27N-26HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5115' & KB 17' @ 5132.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 5115' & KB 17' @ 5132.00ft (ASSUMED)
Site:	BADDING 15-26HZ	North Reference:	True
Well:	BADDING 27N-26HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL_BADDING 27N-2	0.00	0.00	7,342.00	5,118.87	745.05	1,286,394.96	3,212,828.38	40.1170400	-104.7390000
- plan hits target center									
- Point									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,304.00	1,304.00	9 5/8"	9.625	12.250	
7,763.23	7,357.00	7"(460' FSL 1125' FEL)	7.000	7.500	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,254.00	1,254.00	Fox Hills Base				
4,270.19	4,230.00	Parkman				
4,663.73	4,617.00	Sussex				
7,361.59	7,223.00	Sharon Springs				
7,461.04	7,280.00	Niobrara A				
7,644.05	7,345.00	Niobrara B Chalk				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
1,504.00	1,504.00	0.00	0.00	Start Build 2.00	
2,027.07	2,024.17	-25.20	40.41	Start 4311.36 hold at 2027.07 MD	
6,338.44	6,263.87	-439.47	704.64	Start Drop -2.00	
6,861.51	6,784.04	-464.67	745.05	Start DLS 10.00 TFO 0.00	
7,763.23	7,357.00	110.00	745.05	Start 5008.89 hold at 7763.23 MD	
12,772.12	7,342.00	5,118.87	745.05	TD at 12772.12	